## NCBI Blast 2 Sequences results

Taxonomy

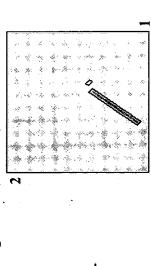
Structure

## BLAST 2 SEQUENCES RESULTS VERSION BLASTN 2.2.10 [Oct-19-2004] MIMO BLAST

Align gap extension: 2 Filter F x\_dropoff: 50 expect; 10.000 wordsize: 111 Match: | Mismatch: |-2 | gap open: |5

Sequence 1 |cl|seq\_1 Length 8509 (1 .. 8509)

Sequence 2 lcl|seq\_2 Length 5859 (1 .. 5859)



NOTE: The statistics (bitscore and expect value) is calculated based on the size of nr database

NOTE:If protein translation is reversed, please repeat the search with reverse strand of the query sequence

```
Score = 3857 bits (2006), Expect = 0.0
                                 Identities = 2006/2006 (100%)
                                                                Strand = Plus / Plus
```

3014 Query: 2955 ggcaatgggtcgaaattcatagaattttgtgtgtgaggtgcgtagcggctctgacaggggtg 

ggcaatgggtcgaaattcatagaattttgtgtgaggtgcgtagcggctctgacaggggtg Sbjct: 402 Query: 3015 ctgcgcggagatctctggtctcaggtagggcgacaatggagaggtgttagttgcccctg 3074



.g 521	ag 3134 	cc 3194	gc 3254    gc 701	st 3314      761	3374      821	sc 3434	ac 3494    	sc 3554
ctgcgcggagatctctggtctcaggtagggcgacaatggagaggtgttagttgcccctg	tategetetetgegtggegeattgggteateetgeeeggaeatatgatatteegetagag 	gattactgatagtttctgcctgtcgggcttgtcgggcttgtcgggcttgtcgggctttgt 	gggcctgtccctcttgtcccgcctgtcctcacttttcacaatcaaaaatgggcgaagc 	ccttcttgttctatagttcttatagttcatacgaaaattacacataattatcaatagctt 	attcgcttaaaagggagtaattgggccgcaaaagggagtaattgggccgcaaaagggagt 	aattgggccgcaaaagggagtaattgggccgatatcggttgtttacatggggaggaatcc 	ccttaatcatttctcccatgggaaagacaacacaagtggccgcagaccgggccttcgac 	cagacaaaaactgtgctccctgccgaggtggcgaggggtctatatgcgcaatccgccc 
aggtgttag	atatgatat          atatgatat	ogggettgt           ogggettgt	gggcctgtccctcttgtcccgcctgtcctcacttttcacaatcaaaaatgggcgaa 	acataatta 	ttgggccgc 	tttacatgg            ttacatgg	cgcagaccg            gcagaccg	statatgcg            statatgcg
riii caatggaga	900099909 	gggcttgto           gggcttgto	ttttcaca;          tttcaca	aaaattaca               aaaattaca	gggagtaa           gggagtaa	atcggttg             atcggttg	caagtggc           caagtggc	agaggggt          agaggggt
	gtcatcct 	ggcttgtc             ggcttgtc	tcctcact             tcctcact	jttcatacg           jttcatacg	Ссдсаааа  - - - - -  Ссдсаааа	:gggccgat           :gggccgat	lagacaaca 	jaggtggcg           jaggtggcg
ggtctcagg	gegeattge             gegeattge	tgcctgtcc          tgcctgtcc	tocogocto	ttcttatag           ttcttatag	gtaattggg           gtaattggg	ggagtaatt          ggagtaatt	ccatgggaa           ccatgggaa	tccctgccc 
	tetgegtge          tetgegtge	atagtttc          atagtttc	ccctcttg	ttctatag          ttctatag	aaaaggga          aaaaggga	cgcaaaag           cgcaaaag	atttctcc            atttctcc	aactgtgc            aactgtgc
ctgcgcgg	tatogoto          tatogoto	gattactg           gattactg	gggcctgt           gggcctgt	ccttcttg            ccttcttg	attcgctt           attcgctt	aattgggc           aattgggc	ccttaatc            ccttaatc	cagacaaa          cagacaaa
462	3075	3135 582	3195	3255	3315	3375	3435	3495 942
Sbjct:	Query: Sbjct:	Query: Sbjct:	Query: Sbjct:	Query: Sbjct:	Query: Sbjct:	Query: Sbjct:	Query: Sbjct:	Query: Sbjct:

Blast Result

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3614
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                                                        1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                    gatgaccctgcaaagatgatcgtgacagtcggcggcttggtcgatgaggcgcgaatagac 3794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1421
                                                                                                                                                                                                                                                                                                                                                            catgaccgtgagagcctgaccccgctgttcgaggagctagccgctgcggtgttgacccat 1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gatgaccctgcaaagatgatcgtgacagtcggcggcttggtcgatgaggcgcgaatagac 1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sbjct: 1242 taccyccaygagycaaycggcgaactcctaytgacytggaccttccygagtacattccyt 1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         atgagogogaaaacotttaoggtoocogagttgogggogotoottggagtgoocgaggga 1481
                                                                                                                                                                                                        Sbjct: 1062 gatgatgtgcgccatgaaatgcggctggccgacattcgcgcaatcgacggcatgaaaaac 1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sbjet: 1362 ggtagtaagtatteegtgetgetgtteeageaegtetetagtetegeeaatettgategg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query: 4035 aagatggttcgttggaacgacgttaacagatttgctctcaaacctgcactggatgagatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             aagatggttcgttggaacgacgttaacagatttgctctcaaacctgcactggatgagatc
                                                                                                                                              Query: 3615 gatgatgtgcgccatgaaatgcggctggccgacattcgcgcaatcgacggcatgaaaaac
                                                                                                                                                                                                                                                                                                catgaccgtgagagcctgacccgctgttcgaggagctagccgctgcggtgttgacccat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query: 3855 cgtatggcggcggagtcgaaccactgggccattctcgaccgtcaaacggtattccatctc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cgtatggcggcggagtcgaaccactgggccattctcgaccgtcaaacggtattccatctc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ggtagtaagtattccgtgctgctgttccagcacgtctctagtctcgccaatcttgatcgg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query: 3975 atgagcgcgaaaacctttacggtccccgagttgcgggcgctccttggagtgcccgaggga
  cgcctgcaggcgctcaagctcatgcatttaatgatagccactgcggggcggccgcatggct
                                                      Query: 3795 taccgccaggaggcaaggcgaactcctagtgacgtggaccttccggagtacattccgt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query: 3675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sbjct: 1302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sbjct: 1422
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                                                                                                                                                                                                                                                                                                                                                          Sbjct: 1122
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Query: 3555
                                                                                                                                                                                                                                                                                                                                                                                                                                                      3735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query:
```

Blast Result

2406 tactggcggaaaaacgcgatattgaggcacaggcccgcactttagaggcggaagcctata 2465

Sbjct:

Query: 5364 tactggcggaaaaacgcgatattgaggcacaggcccgcactttagaggcggaagcctata

```
Query: 4635 atgaatctgggggcatgggttatagatcctgcagaattgcacagagtgtttcctcccattt 4694
                                                                                                                                                                                                                                                                             2201
                                                                                                                                                                                                                                                                                                                                                                                          Query: 4755 aaatgacctcagaaatcagcgcattagagcgtgaagttcggactttacgcgatgctttat 4814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4934
                                                                        Sbjct: 2082 atgaatctggggcatgggttatagatcctgcagaattgcacagagtgtttcctcccattt 2141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sbjct: 2202 aaatgacctcagaaatcagcgcattagagcgtgaagttcggactttacgcgatgctttat 2261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             caccgatgagaggaagaccgccccctcaaaaacaaagatggtggaagatattctgat 2381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sbjet: 2262 etgatgccagggaggatcgcgacaaatggcgcgacatggccgagcgtctttcaatttcat 2321
                                                                                                                                                                                                                                                                        Sbjct: 2142 caaagaaatacaccgaaacacctaacacgcaagtatatggtaagcgtgatgaaacacatg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query: 4875 caccgatgagagaggaagaccgccccctcaaaaacaaagatggtggaagatattctgat
                                                                                                                                                                                             Ouery: 4695 caaagaaatacaccgaaacacctaacacgcaagtatatggtaagcgtgatgaaacacatg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query: 4815 ctgatgccagggaggatcgcgacaatggcgcgacatggccgagcgtctttcaatttcat
                                                                                                                                                                                                                                                                                                                                                                                                                                     Query: 4935 cctgggcttcaggagccttgccttta 4960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sbjct: 2382 cctgggcttcaggagccttgccttta 2407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score = 208 \text{ bits (108)}, Expect = 2e-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Identities = 108/108 (100%)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Strand = Plus / Plus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sbjct: 2322
```

Blast Result

```
0.08 total secs.
                      Sbjct: 2466 acgagtaccaaaacactagaagccagattgaggaaaatagggaacgtg 2513
Number of extra gapped extensions for HSPs above 10.0: 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Number of HSP's better than 10.0 without gapping: 1
                                                                            0.02 sys. secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Effective length of database: 12,527,565,025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Effective search space used: 106246278977025
                                                                                                                                                                                                                                                                                                                                                            Gap Penalties: Existence: 5, Extension: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Effective search space: 106246278977025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Number of sequences better than 10.0: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Number of HSP's successfully gapped: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Number of successful extensions: 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length of database: 12,527,565,053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Effective length of query: 8481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Neighboring words threshold: 0
                                                                            0.06 user secs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Window for multiple hits: 0
                                                                                                                                                                                                                                                                                                                                                                                                          Number of Hits to DB: 1061
                                                                                                                                                                                                                                                                                                                                   Matrix: blastn matrix:1 -2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Number of HSP's gapped: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                      Number of extensions: 43
                                                                                                                                                                                                                                                                                                                                                                                      Number of Sequences: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length of query: 8509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length adjustment: 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (50.0 bits)
(50.0 bits)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 X1: 11 (21.1 bits)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (23.8 bits)
                                                                                                                                                    0.621
                                                                                                                                                                                                                                                       0.621
                                                                              CPU time:
                                                                                                                                                    1.33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          x2: 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 x3: 26
                                                                                                                                                                                                                               Lambda
                                                                                                                              Lambda
                                                                                                                                                                                                         Gapped
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